

AUG 23 2006



**HAMRE, SCHUMANN,
MUELLER & LARSON, P.C.**
AN INTERNATIONAL INTELLECTUAL PROPERTY LAW FIRM

FAX TRANSMISSION

August 23 2006

TO: Mail Stop: Appeal Brief-Patents
Examiner: Krishnamurthy
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

FROM: Curtis B. Hamre

OUR REF: 14470.0037US01

TELEPHONE: (612) 455.3800

Total pages, including cover letter: 18

PTO FAX NUMBER: 571.273.8300

If all pages are NOT received, please call us at 612.455.3800 or fax us at 612.455.3801.

Title of Document Transmitted: **Appellant's Appeal Brief**

Applicant: INUI et al.
Serial No.: 10/803067
App. Filed: March 16, 2004
Group Art No.: 3753

Please charge any additional fees or credit overpayment to Deposit Account No. 50-3478. Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers, if appropriate.

By: Curtis B. Hamre
Name: Curtis B. Hamre
Reg. No.: 29,165

I hereby certify that this paper is being transmitted by facsimile to the U.S. Patent and Trademark Office on the date shown below.

Lisa A. Dorn

Lisa A. Dorn
Signature

August 23, 2006
Date

225 SOUTH SIXTH STREET · SUITE 2650 · MINNEAPOLIS · MN 55402
TEL 612.455.3800 · FAX 612.455.3801
WWW.HSML.COM · MAIL@HSML.COM

AUG 23 2006

S/N 10/803067

PATENTIN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	INUI et al.	Examiner:	KRISHNAMURTHY
Serial No.:	10/803067	Group Art Unit:	3753
Filed:	MARCH 16, 2004	Docket No.:	14470.37US01
Title:	REED VALVE AND REED VALVE ASSEMBLY		

CERTIFICATE UNDER 37 CFR 1.6(d):

I hereby certify that this paper is being transmitted by facsimile to the U.S. Patent and Trademark Office on August 23, 2006.

By: 

Name: Lisa A. Dorn

APPELLANT'S BRIEF ON APPEAL

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

This Brief is presented in support of the Notice of Appeal filed herewith from the final rejection of claims 1, 4, 5 and 9 of the above-identified application, as set forth in the Office Action mailed April 4, 2006.

Please deduct the amount of \$500.00 from Deposit Account No. 50-3478 to cover the required fee for a large entity for filing this Brief.

08/24/2006 EFLORES 00000040 503478 10803067

01 FC:1402 500.00 DA

I. REAL PARTY IN INTEREST

The Real Party in Interest is Honda Motor Co., Ltd.

II. RELATED APPEALS AND INTERFERENCES

There are no prior or pending related appeals, interferences, or judicial proceedings.

III. STATUS OF CLAIMS

Claims 1-5 and 9-11 are pending.

Claims 1, 4, 5 and 9 are the subject of this appeal and have been finally rejected under 35 USC 102(b).

Claims 10 and 11 are allowed.

Claims 2 and 3 are objected to as being dependent upon a rejected base claim, but are indicated as being allowable if rewritten into independent form.

Claims 6-8 have been canceled.

IV. STATUS OF AMENDMENTS

A response under 37 CFR 1.116 was filed on May 18, 2006. The response was considered by the Examiner but was deemed insufficient to place the application into condition for allowance per the Advisory Action mailed June 8, 2006.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The claimed subject matter relates to a reed valve. The reed valve can be used to, for example, supply air to an intake system or exhaust system of an internal combustion engine. See page 1, lines 6-7.

As recited in claim 1, the reed valve can include a plate-shaped support substrate 21 with a valve hole 22 formed in a central section, the valve hole passing through the support substrate in a plate thickness direction. See page 6, lines 14-17 and Figure 1. A flexible plate-shaped reed 24 covers the valve hole 22 at one surface of the support substrate and has one end in a longitudinal direction that is fixed to the support substrate 21. See page 6, line 25 to page 7, line 1; Figure 1. The support substrate 21 has a rib 26 extending along a center line in a longitudinal direction of the inside of the valve hole 22 to divide the valve hole into two spaces 22a, 22b. See page 7, lines 20-22 and Figures 1 and 7-9. A surface of the rib 26 opposite to the reed 24 is positioned on substantially the same plane as a surface of the support substrate 21 so that the reed contacts the rib or is adjacent to the rib. See page 7, lines 23-31 and Figure 1. In addition, the rib 26 projects beyond a surface of the support substrate opposite the one surface. See page 8, lines 12-15 and Figures 1 and 9.

As recited in claim 9, the reed valve can include a support means (35 USC 112, sixth paragraph limitation – see, for example, element 21 discussed at page 6, lines 14-16 and illustrated in Figure 1) with a valve hole 22 formed in a central section, the valve hole passing through the support means in a plate thickness direction. See page 6, lines 14-17 and Figure 1. A flexible reed means (35 USC 112, sixth paragraph limitation – see, for example, element 24 discussed at page 6, lines 25-28 and illustrated in Figure 1) covering the valve hole 22 at one surface of the support means and having one end in a longitudinal direction that is fixed to the support means. The support means has a rib 26 extending along a center line in a longitudinal direction of the inside of the valve hole 22 to divide the valve hole into two spaces 22a, 22b. See page 7, lines 20-22 and Figures 1 and 7-9. A surface of the rib 26 opposite to the reed is positioned on substantially the same plane as a surface of the support substrate so that the reed contacts the rib or is adjacent to the rib. See page 7, lines 23-31 and Figure 1. In addition, the

rib 26 projects beyond a surface of the support means opposite the one surface. See page 8, lines 12-15 and Figures 1 and 9.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1, 5 and 9 are unpatentable under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,387,565 to Otani et al.

Whether claim 4 is unpatentable under 35 USC 103(a) over U.S. Patent 4,387,565 to Otani et al.

VII. ARGUMENT

A. INTRODUCTION

Claims 1, 5 and 9 have been finally rejected under 35 USC 102(b). Appellant respectfully submits that the rejection is in error because U.S. Patent 4,387,565 to Otani et al. (hereinafter "Otani") does not disclose each and every feature recited in claims 1 and 9, and thus does not anticipate claims 1 and 9.

B. REJECTION OF INDEPENDENT CLAIM 1 IN VIEW OF OTANI

Claim 1 recites that the reed covers the valve hole, and that the valve hole is divided into two spaces. Therefore, the language of claim 1 necessarily requires that the reed covers the two spaces since the two spaces form the valve hole.

Otani does not disclose a flexible plate-shaped reed covering a valve hole that is divided into two spaces by a rib as required by claim 1. The final rejection characterizes Otani as disclosing a valve hole 26, a rib 32, and a reed 28 covering the valve hole. Otani discloses a reed valve device L that includes a valve seat 24 with two valve ports 26, and two separate reeds 28 for covering the ports 26 (column 4, lines 31-42; column 9, lines 46-52; and Figures 4, 5, and 8). One of the reeds 28 does not cover a valve hole that is divided into two spaces. Instead, each reed 28 in Otani covers a single port 26 (column 4, lines 37-39; column 9, lines 46-52; Figure 5).

If the rib 32 in Otani divides the valve hole into two spaces, and the two spaces are the two ports 26, then one of the reeds 28 must cover each of the two ports 26 in order to satisfy the language of claim 1. However, as is clearly evident from Figure 5, the left reed 28 covers the left port 26 and the right reed 28 covers the right port 26. A single reed 28 does not cover each port 26.

In addition, claim 1 recites that the support substrate has a rib that extends inside of the valve hole to divide the valve hole into two spaces. Otani does not disclose this feature.

The rejection characterizes element 24 of Otani as a support substrate and element 32 as a rib. However, the element 32 in Otani is not part of the element 24 that is characterized as the support substrate. Instead, the element 32 is a partition wall that is part of the valve housing 18 and the partition wall 32 serves to define separate branches to communicate the inlet port 31 with

upstream chambers Cu (column 4, lines 43-51; Figures 4 and 5). Thus, the element 24 does not "have" a rib as required by claim 1.

In addition, as shown in Figure 5 of Otani, the rib 32 is part of the valve housing 18 which is attached to the head cover 17. The rib 32 is spaced from the valve seat 24 by the elastic packing material 25 and is not part of the valve seat 24. Thus, the rib 32 is not inside a valve hole to divide the valve hole into two spaces, as required by claim 1.

Claim 1 also recites that the reed contacts the rib or is adjacent to the rib. The rib 32 in Otani is spaced above the valve seat 24 by the elastic packing material 25. At no time do the reeds 28 contact the rib 32 nor are they adjacent the rib 32, as the reeds 28 are separated from the rib 32 by the valve seat 24.

Therefore, Otani does not disclose each and every feature recited in claim 1 and does not anticipate claim 1.

C. REJECTION OF INDEPENDENT CLAIM 9 IN VIEW OF OTANI

Claim 9 recites that the reed means covers the valve hole, and that the valve hole is divided into two spaces. Therefore, the language of claim 9 necessarily requires that the reed means covers the two spaces since the two spaces form the valve hole.

Otani does not disclose a flexible reed means covering a valve hole that is divided into two spaces by a rib as required by claim 9. The final rejection characterizes Otani as disclosing a valve hole 26, a rib 32, and a reed 28 covering the valve hole. Otani discloses a reed valve device L that includes a valve seat 24 with two valve ports 26, and two separate reeds 28 for covering the ports 26 (column 4, lines 31-42; column 9, lines 46-52; and Figures 4, 5, and 8). One of the reeds 28 does not cover a valve hole that is divided into two spaces. Instead, each reed 28 in Otani covers a single port 26 (column 4, lines 37-39; column 9, lines 46-52; Figure 5).

If the rib 32 in Otani divides the valve hole into two spaces, and the two spaces are the two ports 26, then one of the reeds 28 must cover each of the two ports 26 in order to satisfy the language of claim 9. However, as is clearly evident from Figure 5, the left reed 28 covers the left port 26 and the right reed 28 covers the right port 26. A reed means 28 does not cover each port 26.

In addition, claim 9 recites that the support means has a rib that extends inside of the valve hole to divide the valve hole into two spaces. Otani does not disclose this feature.

The rejection characterizes element 24 of Otani as a support substrate and element 32 as a rib. However, the element 32 in Otani is not part of the element 24 that is characterized as the support substrate. Instead, the element 32 is a partition wall that is part of the valve housing 18 and the partition wall 32 serves to define separate branches to communicate the inlet port 31 with upstream chambers Cu (column 4, lines 43-51; Figures 4 and 5). Thus, the element 24 does not "have" a rib as required by claim 9.

In addition, as shown in Figure 5 of Otani, the rib 32 is part of the valve housing 18 which is attached to the head cover 17. The rib 32 is spaced from the valve seat 24 by the elastic packing material 25 and is not part of the valve seat 24. Thus, the rib 32 is not inside a valve hole to divide the valve hole into two spaces, as required by claim 9.

Claim 9 also recites that the reed contacts the rib or is adjacent to the rib. The rib 32 in Otani is spaced above the valve seat 24 by the elastic packing material 25. At no time do the reeds 28 contact the rib 32 nor are they adjacent the rib 32, as the reeds 28 are separated from the rib 32 by the valve seat 24.

Therefore, Otani does not disclose each and every feature recited in claim 9 and does not anticipate claim 9.

SUMMARY

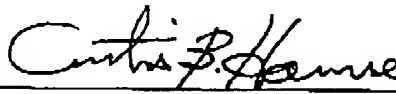
Appellant's claims 1, 4, 5 and 9 are patentable over Otani et al. It is earnestly requested that the Examiner's rejections be reversed, and that claims 1, 4, 5 and 9 be allowed.

Please charge any additional fees or credit any overpayment to Deposit Account No. 50-3478.

Respectfully submitted,

HAMRE, SCHUMANN, MUELLER
& LARSON P.C.
P.O. Box 2902
Minneapolis, MN 55402-0902
612.455.3800

Dated: August 23, 2006

By 
Curtis B. Hamre
Reg. No. 29,165

VIII. CLAIMS APPENDIX

1. A reed valve comprising:
a plate-shaped support substrate with a valve hole formed in a central section, the valve hole passing through the support substrate in a plate thickness direction; and
a flexible plate-shaped reed covering the valve hole at one surface of the support substrate and having one end in a longitudinal direction that is fixed to the support substrate, wherein the support substrate has a rib extending along a center line in a longitudinal direction of the inside of the valve hole to divide the valve hole into two spaces, a surface of the rib opposite to the reed is positioned on substantially the same plane as a surface of the support substrate so that the reed contacts the rib or is adjacent to the rib, and wherein the rib projects beyond a surface of the support substrate opposite the one surface.
2. The reed valve of claim 1, wherein the rib has a grooved section formed in a surface opposite to the reed and penetrating in a width direction of the rib, and the grooved section passes through a space inside the valve hole divided by the rib.
3. The reed valve of claim 2, wherein the grooved section is formed at a part of the rib that is closer to an end that is opposite to an end to which the reed is fixed.
4. The reed valve of claim 1, wherein a surface of the rib opposite to a surface facing the reed is formed having a V-shaped cross section projecting outwards.

5. The reed valve of claim 1, wherein the reed valve is attached inside a secondary air supply passage for supplying secondary air from an intake unit of an internal combustion engine to an exhaust port, with a surface to which the reed is attached facing towards the exhaust port side, and the reed valve is configured so that exhaust gas inside the exhaust port does not flow back to the intake device through the secondary air supply passage.

9. A reed valve comprising:

a support means with a valve hole formed in a central section, the valve hole passing through the support means in a plate thickness direction; and

a flexible reed means covering the valve hole at one surface of the support means and having one end in a longitudinal direction that is fixed to the support means,

wherein the support means has a rib extending along a center line in a longitudinal direction of the inside of the valve hole to divide the valve hole into two spaces,

a surface of the rib opposite to the reed is positioned on substantially the same plane as a surface of the support substrate so that the reed contacts the rib or is adjacent to the rib, and

the rib projects beyond a surface of the support means opposite the one surface.

10. A reed valve comprising:

a plate-shaped support substrate with a valve hole formed in a central section, the valve hole passing through the support substrate in a plate thickness direction; and

a flexible plate-shaped reed covering the valve hole at one surface of the support substrate and having one end in a longitudinal direction that is fixed to the support substrate, wherein the support substrate has a rib extending along a center line in a longitudinal direction of the inside of the valve hole to divide the valve hole into two spaces, a surface of the rib opposite to the reed is positioned on substantially the same plane as a surface of the support substrate to which the rib is attached and is adjacent to the reed, and wherein the rib has a grooved section formed in a surface opposite to the reed and penetrating in a width direction of the rib, and the grooved section passes through a space inside the valve hole divided by the rib.

11. The reed valve of claim 10, wherein the grooved section is formed at a part of the rib that is closer to an end that is opposite to an end to which the reed is fixed.

EVIDENCE APPENDIX

A. OFFICE ACTIONS AND AMENDMENTS/RESPONSES

None

B. REFERENCES RELIED UPON BY THE EXAMINER

1. U.S. Patent No. 4,387,565

C. REFERENCES CITED BY APPELLANTS

1. U.S. Patent No. 4,387,565

D. CASES CITED IN THE BRIEF

None

RELATED PROCEEDINGS APPENDIX

None